

ABSTRACT

Methods are presented, in which an oxide protection layer is provided on a gate structure for protection against poly mushrooming during selective epitaxial silicon deposition in fabricating elevated or recessed source transistors. In one
5 implementation, the protection layer is constructed by depositing silicon germanium over a gate polysilicon layer prior to gate patterning, and oxidizing the device to form a silicon germanium oxide over the gate polysilicon. The protection layer is then removed following selective epitaxial deposition.

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